

## **ABSTRACT**

An apparatus comprising a switch, a fuse, and a sensor that is capable of detecting the presence of flammable vapors and responsively changing in resistance, wherein the sensor enables the switch to supply current to the fuse which opens to shut down an appliance burner. The fuse is connected in series with a control circuit that enables a gas valve to supply gas to the burner. 65 The apparatus comprises a voltage divider circuit that includes the sensor, which upon exposure to flammable vapors, increases in resistance to provide a voltage input to the gate of a FET 100. The FET switches on and conducts a current that blows the fuse to interrupt the appliance burner control circuit and shut down burner operation.